1st February 1929]

Sunn hemp and aloe fibre industry.—The question of minimising the ravages of pests attacking sunn hemp crops is under the consideration of the Director of Agriculture.

Gold and silver lace thread industry.—The State Aid to Industries Act has been amended with a view to assisting small scale industries. If the workers in the industry apply to Government for small loans their applications will be considered.

Metal industry.—It is proposed to consider the question of the nature and extent of the assistance to be given to the metal industry in Dindigul and other places on receipt of the Special Officer's report on Chittoor and Tanjore districts.

Dindigul Brass lock industry.—The Industrial Engineer has been asked to visit Dindigul and report as to the directions in which the industry can be helped.

Tobacco manufacture.—The improvement of the local varieties of tobacco is under the consideration of the Director of Agriculture and the Director of Industries is in correspondence with the Forest department as to the possibility of growing beedi leaves in the vicinity of the chief centres of beedi manufacture.

Toy industry.—The Superintendent of the Madura Industrial Institute has been asked to visit Iravadanallur and furnish a report as to the directions in which the industry could be developed.

Silk industry.—It is understood that several successful crops have been raised at Vedakangulam out of disease free seed supplied from Kollegal. It is not therefore considered necessary to supply the centre with a microscope. When the industry is started in a few more centres in the vicinity and the production of cocoons increases, the question of purchasing and installing a reeling machine for this group will be considered.

Wood carving.—The Superintendent, School of Arts, has been called to visit Madura and to report as to how the industry can be developed on sound artistic lines.

Manufacture of chunam.—Enquiries are being made to ascertain whether the small licence fee now levied makes serious inroads in the profits realised by workers.

APPENDIX XII.

[Vide answer to question No. 1341 asked by Mr. A. B. Shetty at the meeting of the Legislative Council held on 1st February 1929, page 572 supra.]

G.O. No. 140, Development, dated 29th January 1927.

When the Kerala Soap Institute, Calicut, was established, it was one of the main objects of Government to impart instruction in soap making to the owners of small local factories which it was expected would come into existence as a result of the working of the Institute. Owing to various causes it had not been possible hitherto to provide the necessary facilities for this training. The Government however consider that before a decision is

[1st February 1929

taken as to the future of the concern, an attempt should be made to train some apprentices and accordingly sanction the continuance of the Institute till 31st March 1929 and direct that arrangements should be made to train apprentices from 1st February 1927. The Institute will continue to be run as a commercial concern but its principal object will be to provide training in the art of soap making. The position of the Institute will be reconsidered at the end of 1928–29 with reference to the results of its working as an instructional centre.

2. The course of training must be purely practical and adapted to the requirements of men with small capital and no great education who cannot possibly either acquire a knowledge of chemical analysis or afford to maintain a laboratory. The Government consider that the revised syllabus drawn up by the Director of Industries and appended to this order will generally suffice for the purpose. The number of apprentices to be taken will be six in the first year and twelve in the second year. Applicants from outside the Presidency may also be admitted provided it does not involve any additional cost. A fee of Rs. 100 per annum will be charged from each student coming from the Madras Presidency ; the fee in the case of others will be Rs. 150 each per annum.

* * * * *

(By order of the Government, Ministry of Development)

V. Pandrang Row,
Secretary to Government.

Appendix.

Syllabus of lectures for the training of small soap manufacturers at the Kerala Soap Institute, Calicut.

Course.—The course will consist of lectures and practical work in the factory and the laboratory. There will be three lectures a week (each lecture of one hour's duration) and six hours will be devoted to laboratory work. All the rest of the time will be employed in the factory.

1. Lectures (three hours a week) on—

(i) *Raw materials.*—A general survey of the occurrence, preparation and properties of the raw materials necessary for soap making, viz., oils, fats, caustic soda, caustic potash, silicate of soda and soda ash, etc. Then a detailed study of these products as far as their application to the soap industry is concerned. Simple methods of testing the purity of raw materials. If the students have not sufficient knowledge of English, the lectures will be made as far as possible in vernacular, viz., Tamil or Malayalam.

(ii) *Soap making.*—History of soap making. Preparation of different strengths of caustic soda and caustic potash solutions for use in soap making. Fats and oils, simple methods of refining oils and fats. A comparative study of the nature of the various fats and oils. Rosin as a soap material. Soap machinery. Processes of soap making with special reference to cold process work and boiled soap making in a small scale. Classification, manufacture and properties of various kinds of boiled, semi-boiled, toilet and soft

soaps and simple facts regarding the colouring and perfuming of soaps. Glycerine in soap lyes (glycerine waters), their treatment and concentration by solar heat. Principles of concentration in vacuum pan.

(iii) *Analyses of soaps and oils.*—Elementary analyses of testing of oils, fats and soaps; common adulterants in oils and soaps and how to detect them. The properties of a good finished soap.

(iv) *Setting up a small factory.*—Selection of site for a factory. Planning suitable buildings and the best methods of arranging plant and machinery.

(v) *General.*—Simple costing methods of soaps in accordance with the different kinds of raw materials employed for different kinds of soaps. Maintaining short accounts of production, etc. Elements of trading, advertising, etc.

2. *Laboratory work.*—(Six hours a week.) A practical study of the simple chemical operations. The use of a chemical balance. Preparations and use of ordinary standard solutions. Simple methods of testing oils and fats such as the determination of specific gravity, melting and solidifying points, acid value and saponification value. Analysis of soaps. Determination of fatty acids, free alkali, combined alkali, water, fillings, rosin, etc. Only very easy methods that can be quickly grasped and followed will be shown.

3. *Factory work.*—The students will be first initiated into the various departments of factory work such as the weighing and storing of raw materials received into the factory and issuing same for soap making. They will be given instructions regarding the preparation of caustic soda solutions in different strengths in the factory. They will, in the beginning, watch the different processes of soap making and gradually be required to attend to every process themselves. They will have to do manual work in all operations such as the weighment of raw materials, putting them in the soap pans, mixing, boiling, crutching, cleansing, framing, slabbing, cutting, stamping, packing and loading the soaps in carts. Only by such means the students will get to respect the dignity of labour and also to learn the full details most minutely. After they have gained some experience, they will be asked to look after some manufacturing operations and eventually will be given some responsible work such as completing a batch of different kinds of soap The methods of manufacture will be fully demonstrated at every stage in the soap pan and probable difficulties and doubts will be cleared as they arise.